

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004357**Date Inspected:** 29-Sep-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2400**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower & OBG**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

Heavy Equipment Shop Bay 1:

The QA Inspector randomly observed a ZPMC manual torch operator performing heat straightening operations per ZPMC HSR1(T)-4617 on piece mark p607(S) to reduce mill induced distortion.

The QA Inspector randomly observed ZPMC welder Lu Hai Xian ID 040252, utilizing the Submerged Arc Welding (SAW) Process in the 1G (Flat Groove) Position with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2221-B-U3c-S-2, to weld a butt splice on Skin Plate E at Weld Joint (WJ) Numbers SSD1-SA61A/G-13A, 14, 16A and SSD1-SA61G/G-9. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Jiang Jian Fei, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 688 amps, 32.5 volts with a travel speed of 580 millimeters (mm) per minute. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Hua Gui Mei ID 050295, utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-B-U3c-S-2, to weld a butt splice on Skin Plate B at WJ's NSD1-SA178A/D-11A. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Jiang Jian Fei, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 681 amps, 32.6 volts with a travel speed of 594 mm per minute. The weld

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parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

Heavy Equipment Shop Bay 2:

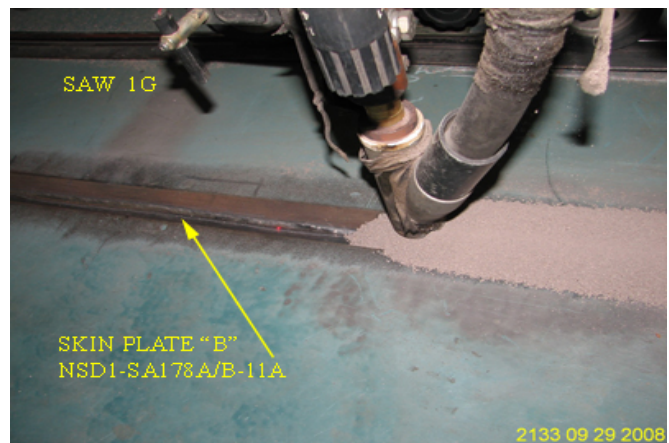
The QA Inspector randomly observed ZPMC welder Yan Mei Zhen ID 042195, utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-B-U3c-S-2, to weld a butt splice on Skin Plate C at WJ ESD1-SA388A/D-5B. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Li Yang, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 668 amps, 32.5 volts with a travel speed of 593 mm per minute. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Cao Xiaohua ID 056975, utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-B-U3c-S-2, to weld a butt splice on Skin Plate C at WJ ESD1-SA376A/E-3A. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Li Yang, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 668 amps, 32.3 volts with a travel speed of 590 mm per minute. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed a ZPMC manual torch operator performing heat straightening operations per ZPMC HSR1(T)-4239 on piece mark p43(E) to reduce mill induced distortion.

Heavy Equipment Shop Bay 3:

The QA Inspector randomly observed ZPMC welder Hu Yongcang ID 203805, utilizing the Flux Cored Arc Welding (FCAW) Process in the 2G/2F Positions with ZPMC WPS WPS-345-FCAW-2G(2F)-Repair-1, to perform an in process weld repair at WJ 001 on Deck Plate DP599-001 (Yellow Tag 000743). The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Li Yanhua, monitoring weld parameters. The attached photograph provides additional detail.



Summary of Conversations:

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As noted in the above body of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco 13816942685, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie
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Quality Assurance Inspector

Reviewed By:	Wright,Mark
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QA Reviewer
